AMENDMENTS TO THE SPECIFICATION

Please amend the specification as follows:

On page 21, lines 1-10, please replace the paragraph with the following amended paragraph:

For example, a ROS targeting signal can include the eight (8) (ETSQVAPA; SEQ ID NO:4) or nine (9) (TETSQVAPA; SEQ ID NO:5) C-terminal residues shared by mouse, human and bovine rhodopsin, which are recognized by the rho1D4 monoclonal antibody (Molday et al., Biochemistry 22:653-660 (1983); MacKenzie et al., Biochemistry 23:6544-6549 (1994); Molday et al., Biochemistry 24:776-781 (1985)). Expression of a transgenic polypeptide containing the 1D4 epitope as the ROS targeting signal can advantageously be detected, and the polyepeptide isolated, by standard immunological assays using the ~~rho 1D4~~ rho1D4 antibody. Another convenient ROS targeting sequence contains the 15 C-terminal residues from bovine rhodopsin (STTVSKTETSQVAPA; SEQ ID NO:6). Other suitable ROS targeting sequences correspond to the C-terminal amino acids (such as from about 8 to about 50 amino acids) of a vertebrate rhodopsin.

On page 34, lines 10-29, please replace the paragraph with the following amended paragraph:

The transgenic polypeptide can be solubilized from the ROS membrane using a suitable detergent. Solubilization conditions can advantageously be optimized so as to provide for single-step purification of the polypeptide. For example, alkyl(thio)glucosides with an appropriate hydrophilic-lipophilic balance (e.g. octylthioglucoside) in combination with a divalent cation provided for single-step purification of rhodopsin from ROS (Okada et al., supra (1998)). Alternatively, the solubilized polypeptide can be subjected to further purification using standard biochemical and immunological procedures, which can be chosen by the skilled person depending, for example, on the biological and immunological properties of the polypeptide and the degree of purity required for a particular application. Advantageously, a polypeptide

containing a ROS targeting signal that contains the ~~1D4~~ rho1D4 epitope can be recognized by the ~~1D4~~ rho1D4 monoclonal antibody. Accordingly, the transgenic polypeptide can be isolated by standard immunoaffinity procedures known in the art.

On page 36, line 14 through page 37, line 4, please replace the paragraph with the following amended paragraph:

A further application for substantially purified transgenic polypeptides is in the preparation of pharmaceuticals. For example, if the transgenic polypeptide is an antibody, it can be conjugated to a toxin and administered to an individual to specifically target cells expressing the corresponding antigen, such as tumor cells. As a further example, if the transgenic polypeptide is a receptor agonist or antagonist, it can be administered to an individual to modulate receptor signaling associated with a pathological condition. Pharmaceutical applications for various polypeptides are known in the art or can be determined. The substantially purified polypeptide can be formulated together with a pharmaceutically acceptable excipient. The amount of polypeptide and the precise formulation will depend on the nature and biological activity of the polypeptide, as well as the intended route of administration. Suitablemethods and excipients for formulating pharmaceuticals are ~~desribed~~ described, for example, in Remington's Pharmaceutical Sciences (Maack Publishing Co., Easton, Pa., most recent edition).

On page 37, lines 5-31, please replace the paragraph with the following amended paragraph:

The transgenic polypeptide can also be used in drug screening applications. For example, rod cells, ROS membrane extracts, or substantially purified polypeptides can be contacted with a candidate compound, and the ability to the compound to bind the polypeptide determined. A compound that binds the polypeptide is a candidate ligand, agonist, antagonist or reverse agonist of the polypeptide. The functional effect of the compound can subsequently be determined by functional assays appropriate to the particular polypeptide. Suitable candidate compounds for use in screening assays include chemical or biological molecules such as simple or complex

organic molecules, metal-containing compounds, carbohydrates, peptides, proteins, peptidomimetics, glycoproteins, lipoproteins, nucleic acids, antibodies, and the like, and libraries of such compounds can readily be prepared or are commercially available. Various binding assays, including high-throughput binding assays are known in the art and can be used in screening ~~assys~~ assays, including scintillation proximity assays (SPA), UV or chemical cross-linking, competition binding assays, biomolecular interaction analysis (BIA), surface plasmon resonance (SPR), mass spectrometry (MS), nuclear magnetic resonance (NMR), and fluorescence polarization assays (FPA). The skilled person can determine appropriate compounds and assays for a particular screening application.